



WG C

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WG C - introduction

- Part of CIS of the WFD
 - Clarify groundwater issues covered by WFD
 - Support implementation of Groundwater Directive (exchange best practices, development of guidance documents)

The past

- Mandate 2007-2009
 - Best practices related to groundwater programmes of measures
 - Common methodology for the establishment of groundwater threshold values
 - Compliance, status and trend assessment
 - Recommendations for integrated risk assessment, including conceptual modelling

Guidance documents

- Groundwater Summary Report (2005)
- 15: groundwater monitoring
- 16 groundwater in drinking water protected areas
- 18: groundwater status and trend assessment
- Technical reports
 - Current: on groundwater dependent aquatic and terrestrial ecosystems

The present

- Mandate 2010-2012
 - Exchange info and lessons learnt during first phase of implementation of WFD and GWD
 - Harmonize implementation in next RBPM
 - Contribute to and support revision of new GWD (early 2013)
 - Contribute to horizontal issues (e.g. climate change) on ad hoc basis

Lessons learnt on

- Establishment of GW threshold values
- Compliance regime for status assessment (qualitative, quantitative) for GW
- First RBMP and its guidance documents
- Hazardous substances (art 6 GWD)
- Risk management of PoMs
- Preparations for the 2nd RBMP

Review GWD

- Annexes I and II of GWD before 16th January 2013 by Commission
 - Environmental standards and threshold values
- Supporting scientific basis: Research project FP 7 Genesis
 - Integrate pre-existing and new scientific knowledge into new methods, concepts and tools for the revision of GWD and better management of GW resources
 - www.thegenesisproject.eu
- Most countries are not in favour for many changes, but clarifications are useful

Ad hoc “climate change”

- Groundwater and climate change
 - One day workshop
 - 3 sessions:
 - Demands fo the member states for having CC well incorporated in the 2nd and 3d RBMP
 - Presenting knowledge that is currently available among scientists in Europe
 - Europe wide CC aspects of groundwater
 - Case studies in EU member states
 - How to match knowledge and demands and make plans for a follow up

incorporation of GW in CC

- Because of primary impact of CC:
 - water availability; salt intrusion; biodiversity (baseflow); redox hydrochemistry
- Because of secondary impact of CC:
 - water demand; land use; salt intrusion, new energy strategies; instability infrastructure

- GW in Guidance doc. 24 on RBMP in a changing climate: shortcomings
 - Recharge processes (incl. artificial recharge)
 - Influence of snowpack to GW dynamics
 - SW/GW interactions
 - How to deal with slow GW dynamics
 - When/how is CC probable cause of GW changes
 - Role of GW as a strategic reserve/storage capacity

Conclusions workshop: what we do know

- Evidence that CC affects GW all over Europe but with very different effects (regional and seasonal)
- Downscaling on a catchment scale is possible but not always reliable;
- General effects of CC on runoff, droughts, GW recharge, GW depletion, water demand, saltwater intrusion on a global and European scale;
- Increase of competition between different GW uses and with GW ecosystem services;

Conclusions: what we do not know or do not have

- Uncertainties in modelling CC aspects on GW
- **Harmonised assessment of drought and scarcity situations in GW (communication?)**
- Adaptive and integrated CC GW monitoring and modelling
- Need of a synthesis of research results for the policy process to make water management plans waterproof/CC proof

Follow up

- a second workshop in autumn 2012 to
 - complete the collection of demands of the member states (policy),
 - the knowledge of CC effects on GW (e.g. on secondary effects)
 - to discuss the need of technical recommendations for the RBMP.
- Must be endorsed by water directors

- Question for a short systematic information exchange between working group C and WG WS&D.
- WG C will put this each time on the agenda



Thank you very much for your
attention

